

## **A pre-pandemic snapshot of travel in northeastern Illinois**

*This policy brief is the first in a series of four exploring the data from the Chicago Metropolitan Agency for Planning's (CMAP) most recent regional travel survey, [My Daily Travel](#). My Daily Travel is CMAP's fifth travel survey, a primary-source data collection undertaken every decade to generate a detailed picture of how and why people travel within the Chicago region. It draws from a representative sample of more than 12,000 regional households.*

*The first policy brief examines what that data can reveal about everyday travel patterns. It provides insight into the questions of when, where, why, and how much people in the region are traveling. The second piece will investigate disparities in travel behavior based on demographic characteristics, such as age, household income, and race and ethnicity. The third and fourth briefs will highlight new and emerging trends in mobility. These include a pre-COVID baseline of telecommuting behavior, the rapid growth of transportation network companies (TNCs) like Uber and Lyft, and the emergence of bike-sharing systems in the region.*

*Note on COVID-19: The My Daily Travel survey reflects travel patterns and preferences in the region as of 2019, prior to the COVID-19 pandemic. Although these patterns have changed in response to the pandemic, this 2019 survey can reveal long-term travel trends that may reassert themselves as recovery continues.*

### **Key findings**

- Average travel distances shortened throughout northeastern Illinois even before the COVID-19 pandemic. Between 2008 and 2019, residents took slightly fewer trips and traveled shorter distances each day.
- Although residents of the region as a whole relied on cars for more than three quarters of all trips in 2019, that figure was significantly lower for city of Chicago residents, at 56 percent.
- When traveling short distances, regional residents were least likely to travel by car. Non-car modes, such as walking, biking, and transit, were used for three quarters of trips that were under a quarter of a mile in 2019.
- Journeys to and from work had the highest reliance on transit. However, transit also played an important role in ensuring access to health care, particularly in Chicago and suburban Cook County.
- As the second most common transportation mode next to car travel, walking accounted for 10 percent of all trips. Residents were especially likely to walk for shorter-distance trips, such as when going out to visit and socialize with friends.

Every day, millions of residents in northeastern Illinois rely on the region’s transportation network to get where they need to go. Some of these trips are short — a walk to the park or a quick car ride to the grocery store. Others, though, are much longer, such as a bus-to-train-to-bus commute from a Chicago neighborhood to one of the region’s suburban job centers.

Most residents travel each day. In 2019, regional residents took more than 27 million trips, covering 123 million miles every weekday from origin to destination. That amount of movement also took a great deal of time. Residents in northeastern Illinois collectively spent roughly 9.6 million hours traveling over the course of a single day.<sup>1</sup>

On an individual level, a traveler in the region in 2019 typically covered 17.7 miles a day — split across nearly four trips that each took about 21 minutes to complete.<sup>2</sup> This represents a decline in overall travel since CMAP’s last [travel survey](#) in 2008. The 2008 survey showed that individual travelers took four trips and traveled a total of 19.7 miles a day. This decline predated the even [sharper fall](#) in travel due to the COVID-19 pandemic. As travel in the region resumes, CMAP will continue to monitor these trends to understand whether the new baseline remains suppressed, returns to, or even exceeds, past levels.

### **Travel modes vary across the region**

The region’s travelers relied on cars for most of the trips captured in the My Daily Travel survey. Drivers, either alone in their cars or accompanied by others, accounted for 61 percent of trips. Car passengers accounted for an additional 17 percent. The remaining trips — just over 22 percent — included walking, transit, school buses, bicycling, and other modes. Of those, walking (10 percent) and transit (7 percent) were by far the largest.

However, the distribution of these trips in the region was not uniform. Chicago residents had a far higher non-car mode share than others in the region. Modes like transit and walking were used for nearly half of all trips (44 percent) in Chicago. Suburban Cook County had the next highest non-car mode share, (17 percent). The share of trips by My Daily Travel respondents in other counties using transit, walking, and other non-car modes was 12 percent or less.

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<sup>1</sup> These figures reflect travel behavior for residents who are at least 5 years old. Distances refer to the point-to-point distance from origin to destination (the “haversine” distances). To enable comparability with CMAP’s prior travel survey, averages only reflect trips made within the CMAP seven-county region (the Illinois counties of Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will) and the Illinois counties of Grundy and DeKalb, as well as trips made between that region and the Indiana counties of Lake, LaPorte, and Porter. Although the Travel Tracker survey did not include residents of DeKalb County, those travelers are included in My Daily Travel figures to reflect overall regional travel patterns. Including all trips within, to, and/or from the CMAP region, the region’s travelers took 27 million trips, traveled 127 million miles, and took 9.7 million hours to do so.

<sup>2</sup> These figures reflect the same exclusions noted above. Including all trips to and/or from the CMAP region, an average traveler in 2019 covered 18.2 miles per day split across 3.9 trips that each lasted an average of 21 minutes.

**Residents of Chicago and Cook County had by far the highest non-car mode share in the CMAP region.**

Note: Includes trips by residents age 5 and older of the CMAP seven-county region, Grundy, and DeKalb. Includes only trips that were within, to, and/or from one of those counties.

Sample size: Figures are based on a total of 97,230 recorded trips. McHenry County has the lowest sample size, with 2,632 records.

Source: Chicago Metropolitan Agency for Planning analysis of My Daily Travel data.

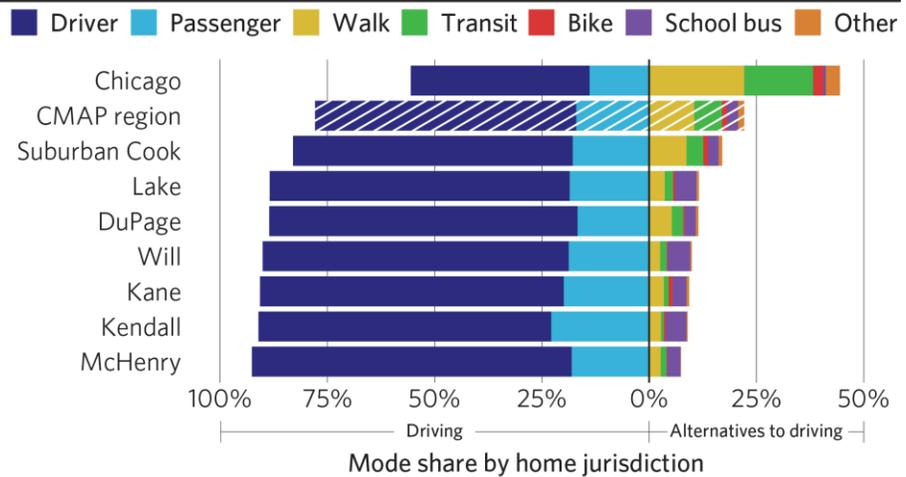


Figure 1

These patterns also varied widely by trip length.<sup>3</sup> For the shortest trips (0.25 miles or less), residents walked or relied on another non-car mode three quarters of the time. As distances increased, the non-car share fell dramatically. For trips between a half and 1 mile, the share was 31 percent. For trips between 2.5 and 5 miles, the share dropped to 13 percent. Transit, walking, and other non-car modes also ranged from 13 to 18 percent for longer trips that were up to 50 miles. For those, an increase in transit use (primarily to and from work) partially offset declines in other non-car modes, such as biking, walking, and riding on school buses. For the longest trips, which were 50 to 100 miles, more than 90 percent were by car. However, even at those long distances, transit still played an important role, representing 7 percent of trips.

<sup>3</sup> These figures rely on the “network distance” of trips, which capture the distance of the route taken by the traveler. This is different (and longer) than the point-to-point, or “haversine,” distances used in comparison to the 2008 travel survey.

## Travelers relied most on non-car modes for the shortest trips.

Note: Includes trips by residents age 5 and older of the CMAP seven-county region, Grundy, and DeKalb. Includes only trips that were within, to, and/or from one of those counties. Distances capture the total distance traveled along the route, not just the distance from origin to destination. Unlabeled bars have less than 5 percent mode share. "By car" includes trips as either a driver or a passenger of a personal vehicle (not including services like taxis or TNCs).

Sample size: Figures are based on a total of 97,230 recorded trips. Trips of 50 to 100 miles have the lowest sample size, with 496 records.

Source: Chicago Metropolitan Agency for Planning analysis of My Daily Travel data.

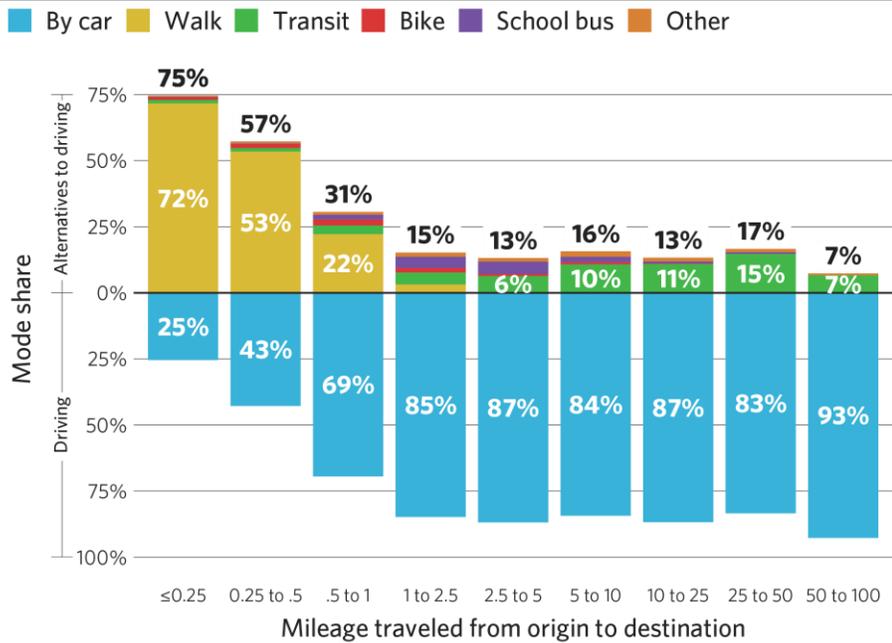


Figure 2

## Many pre-pandemic trips revolved around the morning and evening peak

The My Daily Travel survey can also help understand *when* travel happens in the region. The chart below shows the trips at a given time over the course of an average weekday in 2019. Travel was heaviest during the morning and evening, with peaks of nearly 1.3 million trips in motion shortly before 8:00 a.m. and shortly after 5:00 p.m. However, substantial travel still happened during other parts of the day. More than 500,000 trips were in motion between the two peak periods. Hundreds of thousands of ongoing trips also were made in the morning and late into the evening.

**The morning and evening peaks in travel demand were very pronounced, although the COVID-19 pandemic's impact on these travel patterns remains uncertain.**

Note: Trips in motion are 25-minute rolling averages. Includes trips by residents age 5 and older of the CMAP seven-county region, Grundy, and DeKalb. Includes only trips that were within, to, and/or from one of those counties.

Sample size: Figures are based on a total of 97,224 records.

Source: Chicago Metropolitan Agency for Planning analysis of My Daily Travel data.

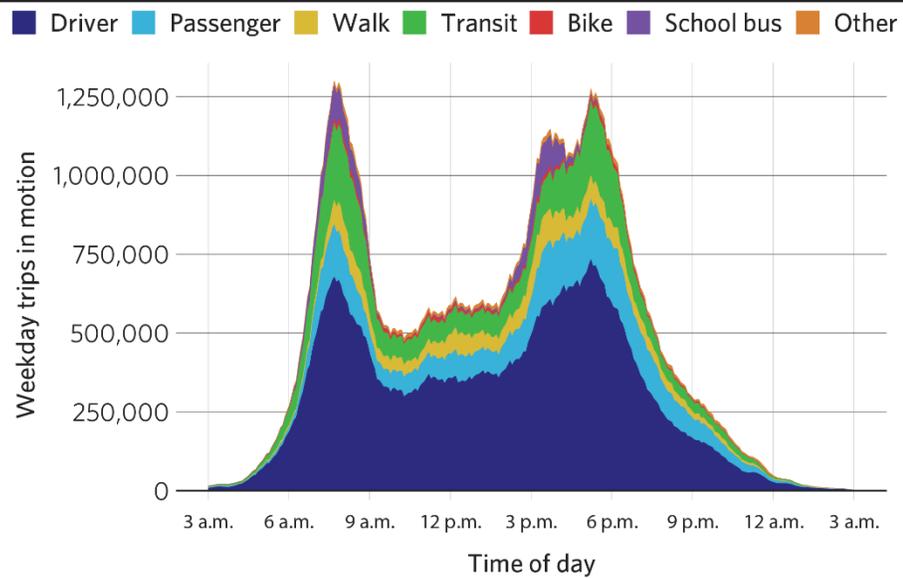


Figure 3

Figure 3 also shows how the modes in motion varied over the course of a day. For example, while all modes were used more during the morning and evening peaks, transit saw the most dramatic growth. During peak travel times, roughly four times as many transit trips were in motion compared to the middle of the day. In contrast, driving and walking only doubled.

This demonstrates the particularly important role transit serves in the morning and evening commute to work. It also highlights the potential challenge the region's transit operators may face if commute patterns change permanently after the pandemic. Although transit ridership has recovered partially from the steep declines of the pandemic's early months, it still falls significantly below pre-pandemic levels. In contrast, driving in the region appears to have returned to near pre-pandemic levels, including the [rush-hour traffic congestion](#) that largely was absent through much of 2020.

Looking forward, transit ridership remains uncertain. For example, some travelers who previously commuted to work by transit during the traditional morning and evening peaks may adjust their habits. They may change the time of day they commute to work. They also might shift the number of times and places to which they travel for work. Some of these previous transit trips may even vanish entirely, especially if working from home remains common. Recent surveys conducted by the Regional Transportation Authority (RTA) indicate such changes are possible. But [many pre-COVID transit riders](#) are not yet sure when and to what extent they will resume their previous transit travel.

**The share and composition of non-car modes varies widely by trip purpose**

The survey also reveals differences in travel patterns by trip purpose. The My Daily Travel survey captured 29 distinct categories for why the region's residents traveled. These trip

categories include not only work but also school, socializing, errands, health care, exercise, and many more. All of these trips relied on the region’s transportation systems, but they are not all alike. For example, a large majority of the region’s trips in 2019 were by car, but some, like traveling to school, were more evenly split. Non-car modes like school buses, walking, and transit were used for nearly half those trips.

**While shopping trips were spread out across the day, work trips and other trips had strong morning and evening peaks.**

Note: Trips in motion are 25-minute rolling averages. Includes trips by residents age 5 and older of the CMAP seven-county region, Grundy, and DeKalb. Includes only trips that were within, to, and/or from one of those counties.

Sample size:  
 - Work (42,581);  
 - Shopping (15,054);  
 - Other (39,589).

Source: Chicago Metropolitan Agency for Planning analysis of My Daily Travel data.

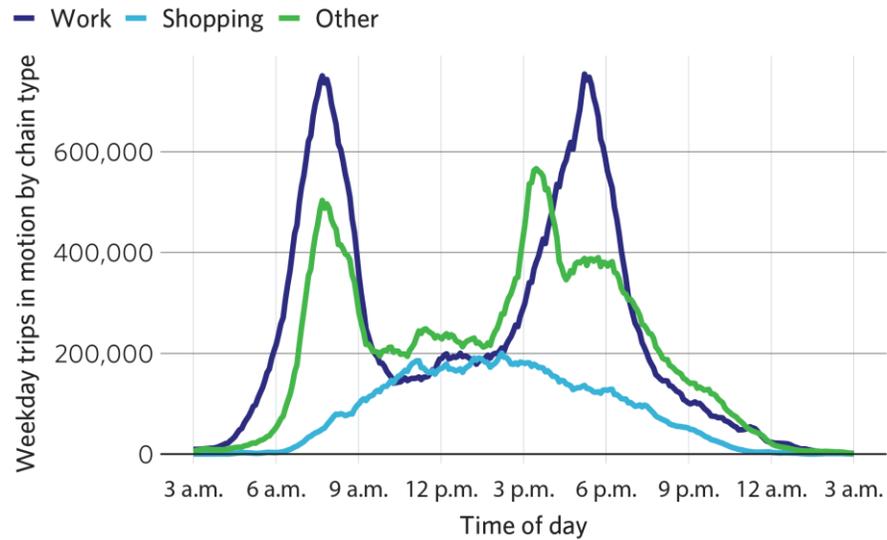


Figure 4

**Travel choices differ significantly between peak and off-peak trips.**

Note: Includes trips by residents age 5 and older of the CMAP seven-county region, Grundy, and DeKalb. Includes only trips that were within, to, and/or from one of those counties. Peak trips include all trips that were in motion between 6:00 a.m. and 9:00 a.m. or between 3:00 p.m. and 7:00 p.m. Unlabeled bars have less than 5 percent mode share.

Sample size (Work/Shopping/Other):  
 - Peak (28,768/6,229/24,556);  
 - Off-peak (13,800/8,818/15,016).

Source: Chicago Metropolitan Agency for Planning analysis of My Daily Travel data.

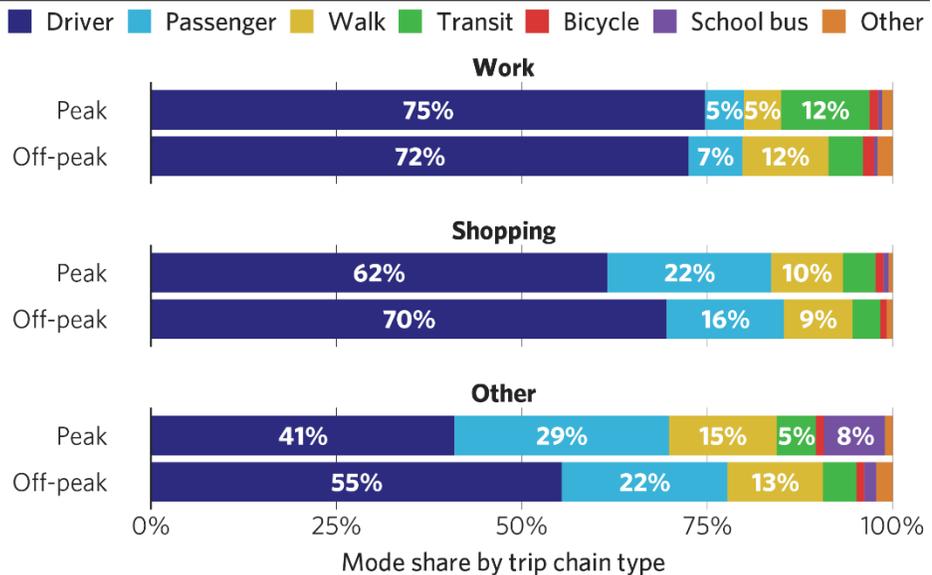


Figure 5

One way to understand these trips is to consider “chains” of trips. For example, a person driving from home to work and back may make different stops along the way to drop off a child at

school, pick up groceries, or complete other errands. As shown above in Figure 4, the greatest number of trip chains were those to and from work. These trips displayed strong morning and evening peaks. Figure 5 shows that transit played a disproportionately important role during peak hours. In contrast, shopping trips had a much smoother profile over the course of a day, both in the number of trips and the modes used to complete those trips. These shopping trips [peaked in the early afternoon](#) but never reached the dramatic increases seen in the other two trip categories.

The “other” category had its own distinct shape. Children traveling to and from school, as well as parents dropping off and picking up their children, make up many of these trips. It also includes a range of additional trip purposes — exercising at the gym, going to a religious service, volunteering, attending a major special event, and more. The other category had a pronounced morning and evening peak, similar to work trips. But trips to school were most prominent. School trips made up 60 percent of the morning peak, with trips to transport or accompany others representing another 12 percent. However, the evening peak occurred earlier in the afternoon than that of work trips. This reflects the prominence of school trips and their differing time of day versus the evening commute home from work.

The trip purposes captured in My Daily Travel also are more detailed than those included in CMAP’s 2008 travel survey. This granularity allows for a better understanding of travel patterns for specific trip purposes, including two — health care and socializing — explored in detail below

### **Transit is crucial to health care access in the region**

When accessing health care, residents most commonly relied on a personal vehicle as either a passenger or a driver. However, non-car modes — and transit in particular — also played a crucial role in providing access to health care. Transit especially was important for Chicago and Cook County residents. Chicago residents relied on transit for 29 percent of their personal health care trips, and residents in suburban Cook used transit for 7 percent of theirs. Outside Cook County, the transit (and non-car) share were much lower: 95 percent of those residents used a car for their personal health care trips.<sup>4</sup>

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<sup>4</sup> While sample sizes at this level of granularity are relatively small, travelers from outside Cook County who relied on transit for health care trips appear to have fewer average household vehicles, and were more likely to have no vehicles, than other comparable travelers. It also appears that the region’s Black, Latino, and multiracial residents were the likeliest to rely on transit for personal health care. Transit made up 20 to 40 percent of their personal health care visits. In contrast, less than 6 percent of health care visits for White and Asian residents were by transit.

**Although driving was most common, transit played an important role for personal health care visits, especially for Chicago residents.**

Note: Includes trips by residents age 5 and older of the CMAP seven-county region, Grundy, and DeKalb. Includes only trips that were within, to, and/or from one of those counties. "By car" includes trips as either a driver or a passenger of a personal vehicle (not including services like taxis or TNCs). Unlabeled bars have less than 5 percent mode share.

Sample size:  
 - Chicago (450);  
 - Suburban Cook (279);  
 - Collar and adjacent (712).

Source: Chicago Metropolitan Agency for Planning analysis of My Daily Travel data.

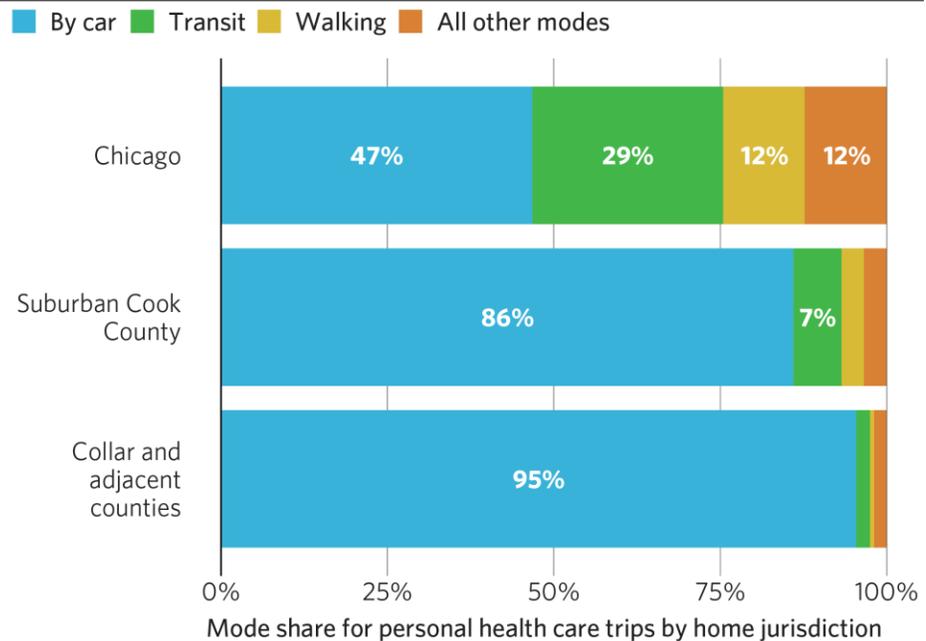


Figure 6

Residents in households with limited or no access to a vehicle were the most likely to rely on transit and other non-car modes. Across the region, households with no vehicles accounted for more than half of all personal health care trips that used transit. The share was even greater when only examining households from outside Cook County. Of the remaining health care trips that used transit, most trips were made by households with only one vehicle — accounting for another 42 percent across the region.<sup>5</sup>

These findings emphasize a critical fact. Transit is important for [all kinds of trips](#) in the region, not just commutes to and from work. For many residents in the region, access to reliable, frequent, and affordable transit is synonymous with access to health care. And unlike trips to work, transit trips for health care and many other purposes were not concentrated during the morning and evening rush hour. As shown below, these trips were most common in the late morning and early afternoon, with a notable decline around noon.

<sup>5</sup> Although the limited sample sizes prevent definitive conclusions, the concentration of no-vehicle households relying on transit for health care trips was especially prevalent among bus riders.

**Personal health care trips have a morning and afternoon peak, but these are concentrated around, but not during, the lunch hour.**

Note: Trips in motion are 55-minute rolling averages. Includes weekday personal health care trips by residents age 5 and older of the CMAP seven-county region, Grundy, and DeKalb. Includes only trips that were within, to, and/or from one of those counties.

Sample size: Figures are based on a total of 1,440 records.

Source: Chicago Metropolitan Agency for Planning analysis of My Daily Travel data.

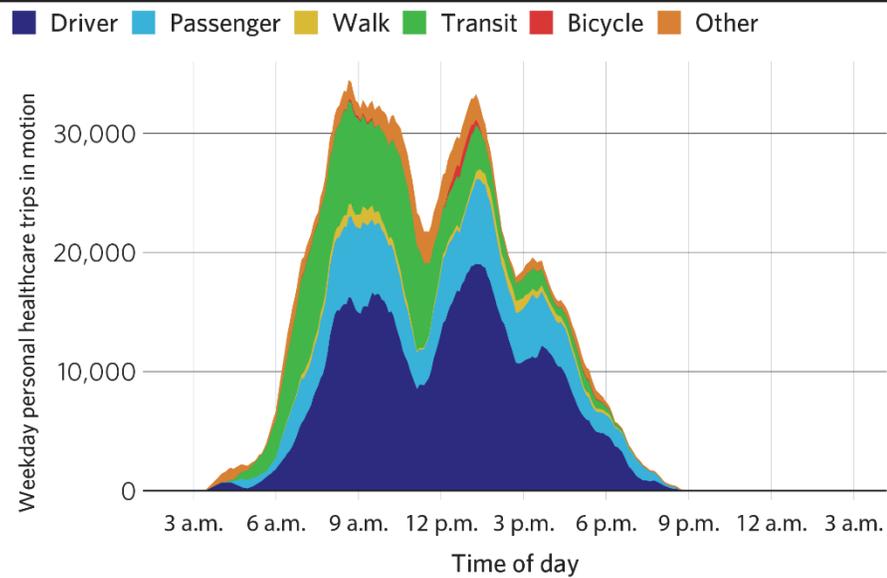


Figure 7

The importance of [transit connections](#) to health care also has been reinforced in recent months as residents travel for COVID-19 testing and vaccinations. The pandemic also has rapidly accelerated the [adoption of telehealth](#), which may alter the demand for health care visits in the future. However, policymakers and planners still must ensure residents can make health care visits that must happen in person. Despite the growth of telehealth, many residents with limited broadband access or digital literacy still face barriers in accessing these services. For those residents and many others, effective transit service continues to play a critical role in supporting health care access.

**Residents are more likely to drive to visit family than friends**

Policymakers and planners often discuss transportation in terms of access to opportunities and resources, such as jobs, education, and health care. These are important, but transportation also connects residents for more personal reasons. It provides the physical link between each of the region’s residents and their friends, family, and neighbors.

**Walking and other non-car modes were significantly more common for trips to socialize with friends than with relatives.**

Note: Includes trips by residents age 5 and older of the CMAP seven-county region, Grundy, and DeKalb. Includes only trips that were within, to, and/or from one of those counties. "By car" includes trips as either a driver or a passenger of a personal vehicle (not including services like taxis or TNCs). Unlabeled bars have less than 5 percent mode share.

Sample size (Chicago/Suburban Cook/Collar and adjacent):  
 - Friends (872/354/800);  
 - Relatives (264/201/500).

Source: Chicago Metropolitan Agency for Planning analysis of My Daily Travel data.

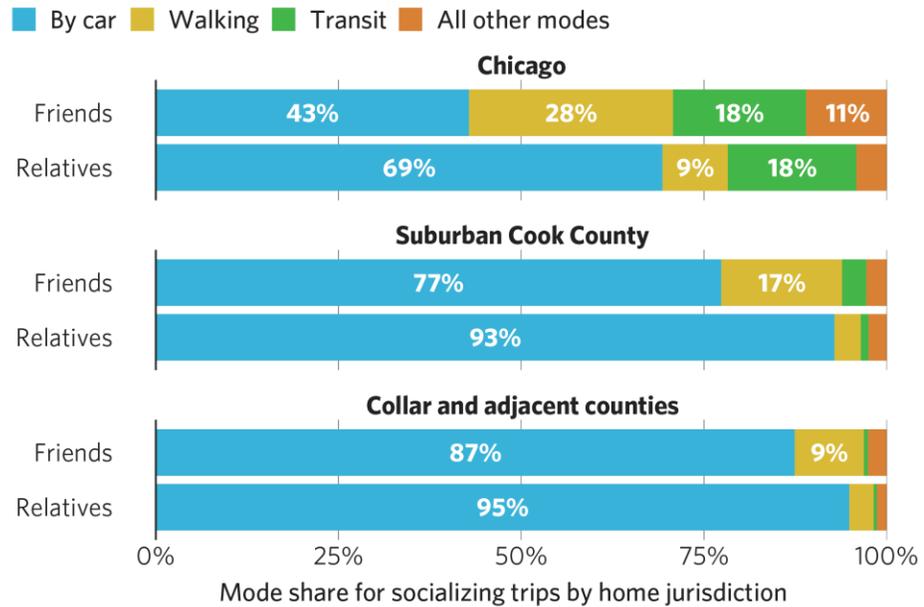


Figure 8

My Daily Travel data shows a key factor for whether residents decided to walk, bike, or drive when socializing was whether the trip was to visit family or friends. Most notably, travelers were much more likely to walk to visit friends than to visit family. This pattern held across the region, although the total non-car mode share was highest for Chicago residents and lowest for residents outside Cook County.

This variation appears to partially reflect differences in the spatial distribution of friends and family. The median trip to socialize with friends was 2.7 miles, while the same for family was 4.7 miles. As shown above in Figure 2, these differences can have a significant impact on residents' choice of travel mode.

However, other factors are likely at play. For example, [studies from other cities](#) have shown that access and proximity to transportation assets, such as transit networks, may influence where people make friends. While regional residents might have little control over where their relatives live, their choices of friends could in part reflect the existing transportation network. Indeed, these variations between travel modes for visiting friends and family persist even when comparing trips of similar distances.<sup>6</sup>

Regardless, fostering social connections will be more important than ever as the region emerges from the lockdowns and social isolation prompted by the pandemic. When

<sup>6</sup> For example, the non-car share for trips between 0.5 and 1.5 miles was 39 percent for socializing with friends and 20 percent for socializing with family.

policymakers contemplate improvements to the region’s transportation system, they need to understand *all* the ways access to transportation affects resident’s lives.

### **Looking ahead**

Although the travel patterns revealed by My Daily Travel predate the pandemic, they represent long-term trends that likely will reemerge in some form as recovery continues. Planners and policymakers must grapple with questions like: How can the region accommodate travel demands throughout the day, and not just during peak hours? What policies and investments can enable travelers to choose non-car modes? And how can the transportation system continue to provide reliable access to all of the region’s residents, no matter where they live or whether they own a vehicle? Given the disruptions caused by the pandemic, recommendations in ON TO 2050, the long-range plan for northeastern Illinois, remain vital and should continue to guide the region’s responses to these and other questions.

### **Actions for public officials**

- Promote mixed-use and infill developments, especially near transit corridors, to provide residents more options for shorter and more sustainable trips.
- Maintain transit’s core competitiveness while also making it a more attractive option. Investments in more frequent service, as well as improved coordination between mobility providers in the region, could help accommodate more all-day travel and other “non-traditional” trips.
- Fill gaps in sidewalk infrastructure to promote more walkable communities and enable more residents, especially those with limited mobility, to move safely around the region.

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### *About the data*

Unless otherwise cited, the analyses in this series rely on publicly available data from CMAP’s My Daily Travel (2019) and Travel Tracker (2008) surveys. Both surveys are available on CMAP’s [Data Hub](#). CMAP used R, a free open source statistical package, to analyze the data. The R scripts used to perform these analyses are available on CMAP’s GitHub [page](#). In addition to these scripts, the GitHub page includes information about the assumptions used and data exclusions applied. Partners are encouraged to use and build on this analysis to understand travel dynamics relevant to their constituents and stakeholders.